

## An Ecosystem of Spaces for Infusion Therapy

**Traditional infusion therapy spaces seldom meet the unique safety, physical and emotional wellbeing needs of patients and care partners. Providing an ecosystem of spaces is the first step to solve for this problem.**



**Cathy, a 59 year-old nurse, prepares for another morning chemo infusion in her fight against early-stage breast cancer. She has two more weeks of treatments left, and she can't wait for it to be over.**

Every six weeks, David, a 45-year-old former teacher, rolls up his sleeve and prepares for his Remicade infusion. The treatment, used to control his chronic Crohn's Disease, takes two hours. Like thousands of other patients, David and Cathy require infusion therapy to manage their health.

For Cathy, it's likely a temporary situation. For David, the infusions will probably last for the rest of his life. But for both, the experience is unlike anything else they've ever been through.

Today, infusion therapy is a commonly used treatment for a multitude of diseases: cancer, congestive heart failure, Crohn's Disease, hemophilia, immune deficiencies, multiple sclerosis, rheumatoid arthritis and more. Globally, demand for infusion therapy is on the rise, with North America and Europe leading the way.

Treatment protocols differ from region to region, but one thing remains constant: the need for treatment spaces that balance patient support and safety. For most patients, treatment is a blurry combination of anxiety and hope, loss of control and diminished independence. It's a time of confusion and acceptance, and physical and emotional turmoil. For family members, it's marked by feelings of helplessness and stress, trying to cope with the competing and immediate needs of their loved one, other family members and employers. For clinicians, it's a workplace focused on patient surveillance, access to information and collaboration, and patient/family education and support.

But infusion treatment spaces today often reflect a different reality: They're stark and cold. They don't allow patients to control social interaction. They don't provide physicians and nurses with the tools and technology they need where and when they need it. Family is crowded out by medical equipment in poorly designed spaces, creating a sense of isolation when close proximity is needed most. Furnishings are uncomfortable, hard to clean and difficult to adjust.

## CLINICIAN AND PATIENT NEEDS

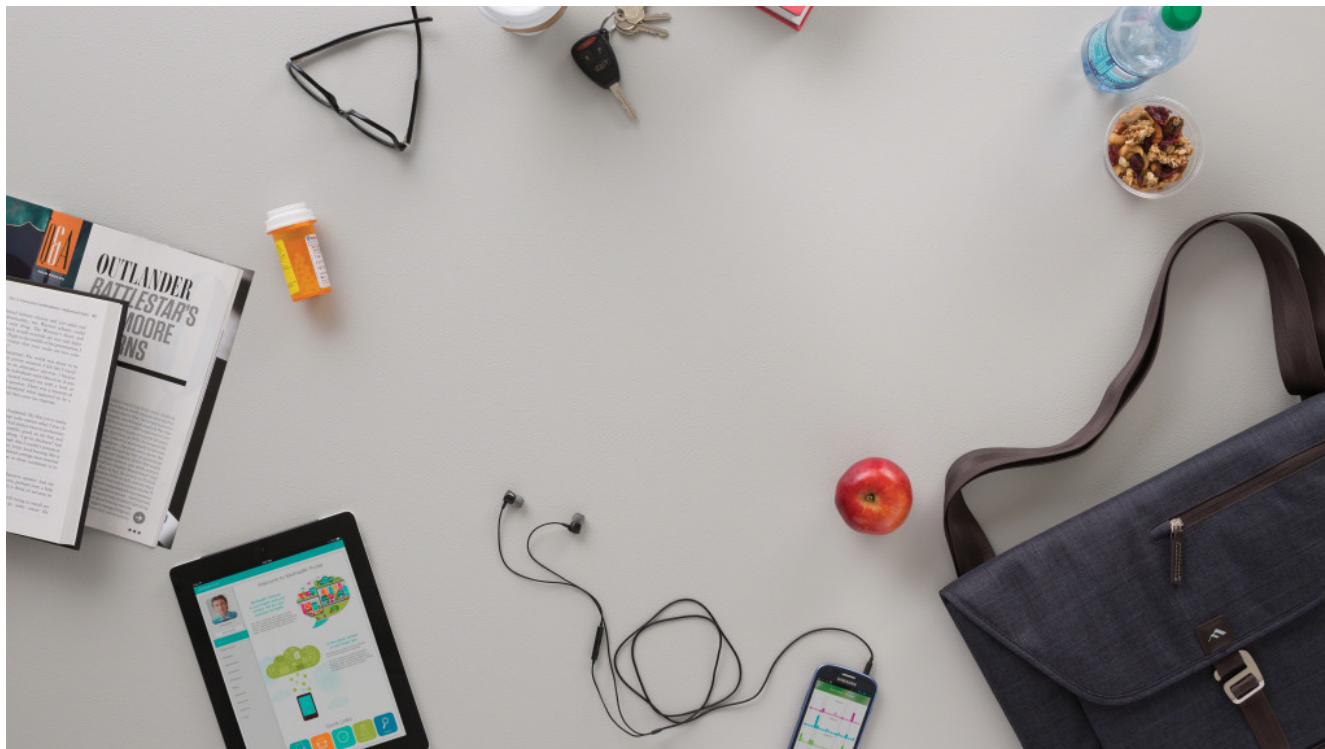
"From a clinical perspective, safety is the paramount concern," says Michelle Ossmann, director of healthcare environments for Steelcase Health. "This is a time when patients are at risk for life-threatening reactions to their treatments and at risk for falls, so nurses must be able to observe their patients. And, as in any clinical setting but especially where many patients are immunosuppressed, infection control is a great concern." Patients need to be able to relax, knowing they're in safe hands while they receive treatment. And clinicians need to be able to react quickly, reaching the tools and supplies they need without delay or barriers, whether it's assistance to the bathroom or a new IV bag.

Ensuring patients' safety while tethered to an infusion pump is part of the clinicians' job as well. In most treatment spaces, patients sit in recliners as they receive their treatments. Steelcase Health researchers observed that recliners in infusion therapy spaces aren't designed for IV-connected patients, especially those who may be experiencing weakness in their extremities. Recline controls are usually only on one side of the chair and rely heavily on dexterity and strength. Posture choices are limited, and the recliners are usually overstuffed, making them hard to clean and unhygienic. They're hard to get in and out of, and often patients find them uncomfortable during long treatments.

For clinicians, these poorly designed recliners make it more difficult to tend to patients and add an increased risk of injury. "Giving patients control over their posture and physical comfort helps them maintain some independence and helps keep them safe," Ossmann added. These sound like simple things in an ordinary environment—but in infusion therapy spaces, these details have potentially serious safety implications.

But safety extends well beyond infection control and safe equipment use—it's also critical that spaces be designed with clear sight lines between clinicians and patients. Medicine must be administered with great precision, and visual monitoring is imperative to check for side effects. That sense of safety is vital for patients as well. "Knowing I can see someone is really important," said David. "I'm not new at this, and I know how I react now. But you're taking serious medicine through a serious needle and you can't really move, so it makes me feel a little more secure when I can see one of my nurses."

Clinicians' need to closely observe patients and patients' need for privacy are often at odds, creating a tension point in space design. Cathy understands both sides of the story. "I know what it means to need to monitor my patients," she said. "But for me, this has been an intensely personal experience and I don't really want to feel like my privacy is being invaded. Cancer already invaded my body."



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## **DIFFERENT PATIENTS, DIFFERENT PEOPLE**

By offering safe environments for infusion therapy treatment rooms, clinicians, patients and families can feel confident and comfortable all is well. And that sense of emotional and physical comfort is a key piece of the treatment process. It's important to realize that infusion therapy treatment is a highly individualized protocol and path. Every patient experiences different physical states and emotional needs at different points along the way, based on their diagnosis, treatment plan and possible side effects. "Every time you go to treatment, it's different," said Mary Juhlin, a Steelcase Health product manager. "Your physical condition is different, your perspective is different and your care partner has different things going on, too. Personalizing that changing experience is what we're trying to do."

For instance, chemotherapy treatments can last minutes, or they can last up to eight hours. During that time, patients who feel well enough can be encouraged to move around, to walk, to socialize and to exercise a sense of control over their posture, their temperature and even the lighting.

There's no reason patients need to be confined to their treatment recliners, stuck in the same position for hours with no positive distractions or stimulation. But many infusion therapy suites make the simple task of getting up difficult for patients who must have their recliner adjusted for them and IV pump disconnected. In some cases, recliners are static, unable to recline to comfortable positions because equipment crowds the treatment area. "What's needed is freedom of movement in those spaces," said Juhlin. "It means creating a whole environment where patients can easily and safely receive treatment, move, eat, meet with people, socialize and relax. This helps patients feel like a whole person, not just a patient. It's not just about the recliner any more—it's about the whole environment and experience."

In various forms, positive distractions can take patients' minds off their circumstances and help them feel a sense of normalcy. "You need to take your mind off the treatment," David said. "There's this weird element of wanting to watch the IV slowly dripping into your arm. They have TVs I can watch instead. Sometimes I read, sometimes I sleep and sometimes I work on my laptop to help pass the time." He prefers as much separation from other patients as possible during his treatments. "You're in a semi-private environment discussing very private things. I don't want the distraction of another person."

## **MAKING ROOM FOR FAMILY**

Family members, friends and other care partners often accompany patients for infusions and appointments. The presence of family members reassures patients that someone is immediately available to help them if needed and provides emotional support. However, many waiting room and treatment area designs imply that family members are an imposition, lacking simple conveniences like comfortable seating, storage for personal items or outlets to charge electronic devices. "Family members want to be with their loved ones, but they're also juggling demands from their outside lives as well," says Steelcase Senior Design Researcher Caroline Kelly. "We see that patients don't want to be viewed as a burden. They want their family members to keep pace with their jobs and their lives, and not being able to stay on top of those things makes patients feel guilty and care partners feel more stressed." Staying on top of work demands access to power solutions, data and a work surface.

Allowing family members and patients to be physically close promotes privacy, intimate communication and monitoring for changes in the patient's condition. But often, family members just need a place to rest. Early morning appointments, long hours and the need for travel can wear on caregivers, who often put their physical needs second to their loved ones. "Getting enough rest is critical for the care partner," said Kelly, "but most treatment spaces weren't designed to accommodate that."

## **A NEW INFUSION EXPERIENCE**

As we learn more about the dynamic needs of infusion therapy patients, it's evident that treatment spaces and waiting areas must do a better job of accommodating patients, clinicians and family members. By designing treatment spaces that promote safety, provide emotional and physical comfort for patients and support families, we believe treatment spaces can play an integral role in the healing process. With a suite of options that offer choice, control and access to technology, new infusion therapy treatment spaces can help transform an incredibly difficult time into one of support and hope.



Recliners help patients relax in comfort with the option to change postures during treatment. It's easy for clinicians to get close and tend to patients' needs efficiently. Seating with integrated power access allows for partners in care to stay connected via technology while supporting the patient with their presence. Modular casegoods define personal space, and they give clinicians easy access to patients, technology and supplies.

## SEMI-OPEN TREATMENT AREAS

This setting enables patients to have family members present as well as socialize with other patients. Patients can switch from upright to reclined positions. Personal space is defined. And clinicians have immediate access to patients, technology and supplies.



Side-by-side recliners help patients relax in comfort. There's still plenty of room for clinicians to get close and tend to patients' needs efficiently. Because people often learn better together, this space provides opportunities to watch an informational video or participate in a small group discussion with a care provider. A lounge chair can be a relief for people who are tired and stressed, wrapping comfort around them. A comfortable booth provides intimacy for families who want to play a game, enjoy a snack or simply be together in their own space.

## COMMUNAL SPACE

A café-like social hub, this space supports many activities—going online, getting work done, watching TV, reading, playing games, snacking or conversing. Families and patients may choose to be in or near this open space for its energizing quality, and it's also an ideal environment for group or individual learning.



Next to the patient's recliner, a mobile overbed table works as an end table, a snack tray, a game center or a worksurface. It's also a place for clinicians to rest a laptop or tablet to display health information that can be brought close to everyone in the room. A comfortable pull-up chair with a generous seat is multipurpose, making it easy to reconfigure the room to whatever is occurring at the moment. Having a place for personal items makes it easy to settle into a space that feels more like "yours" for as long as you're there. This storage unit does double duty as a bench for short-term sitting, adding to the flexibility of the space.

## PRIVATE FAMILY TREATMENT ROOMS

When patients and family members need time together apart from the eyes of others, these rooms offer plenty of space for interaction, lounging, playing games or sharing a snack. This space allows patients to feel a higher sense of control over their environment, and ultimately their treatment.

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## DESIGNING FOR INFUSION THERAPY SPACES

### People

- Design an ecosystem of private, semiprivate and communal spaces that recognizes people's individuality and desire for control of their environment
- Plan for the presence of family members throughout the space. Provide seating that supports various postures: upright sitting, perching, lounging, reclining, lying down, etc.
- Support sharing information in a variety of ways
- Create spaces that allow people to connect face-to-face without interference
- As much as possible, design the spaces to feel informal and hospitable

### Place

- Design treatment settings that offer various levels of privacy
- Build in flexibility so the space can adapt to future needs
- Include open storage so people can help themselves to blankets, tissues, water, etc.
- Provide a communal café space with television, game tables, Internet access, reading materials, etc.
- Bring natural light in with large windows and skylights
- Realize the importance of adjacencies and sightlines that support spatial awareness, way-finding and opportunities for communication

### Technology

- Leverage technology to enhance communications, but don't let it overwhelm the environment
- Anticipate new and emerging technologies with an adaptive infrastructure
- Support use of mobile technologies by clinicians, family members and patients
- Include an electronic room-reservation system to manage use of private and semiprivate spaces
- Make it easy to adjust lighting levels in private and semiprivate spaces

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